

CLAIMS:

1. A static magnetic field generating apparatus comprising:
a pair of permanent magnets opposingly disposed across a space in which
5 a subject is placed;
a pair of base yokes for supporting said permanent magnets; and
columnar yokes for magnetically connecting said base yokes and
structurally supporting them, said columnar yokes having a magnetic resistance
modifying device.
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2. The static magnetic field generating apparatus of claim 1,
wherein said modifying device comprises a groove on a side surface of at least
one of said columnar yokes, said surface lying in parallel with a longitudinal axis
of said columnar yoke.
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3. The static magnetic field generating apparatus of claim 2,
wherein said groove has a rectangular cross section.
4. The static magnetic field generating apparatus of claim 2,
20 wherein said modifying device comprises an insert member of a shape generally
conforming to said groove, said insert member being inserted/removed
into/from said columnar yoke.
5. The static magnetic field generating apparatus of claim 1,
25 wherein said modifying device comprises a through hole passing through a side
surface of at least one of said columnar yokes, said side surface lying in parallel
with a longitudinal axis of said columnar yoke.
6. The static magnetic field generating apparatus of claim 5,
30 wherein said through hole has a circular cross section.

7. The static magnetic field generating apparatus of claim 5, wherein said modifying device comprises a filling member of a shape generally conforming to said through hole, said filling member being inserted/removed
5 into/from said columnar yoke.

8. The static magnetic field generating apparatus of claim 1, wherein said modifying device comprises a threaded hole provided on a side surface of at least one of said columnar yokes, said side surface lying in parallel
10 with a longitudinal axis of said columnar yoke.

9. The static magnetic field generating apparatus of claim 8, wherein said modifying device comprises a screw of a shape engageable in said threaded hole, said screw being inserted/removed into/from said columnar
15 yoke.

10. The static magnetic field generating apparatus of claim 2, wherein said groove, said through hole or said threaded hole is disposed on the side surface of said columnar yoke on the side where said space lies.
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11. The static magnetic field generating apparatus of claim 10, wherein said groove, said through hole or said threaded hole is disposed in a bending portion at which said base yoke and said columnar yoke are joined.

12. The static magnetic field generating apparatus of claim 1, wherein said modifying device comprises a different-material portion provided within at least one of said columnar yokes and composed of a material having a different magnetic permeability from that of said columnar yoke.
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13. The static magnetic field generating apparatus of claim 12,
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wherein said different-material portion has a cross-sectional shape identical to a cross section perpendicularly intersecting the longitudinal axis of said columnar yoke:

5 14. The static magnetic field generating apparatus of claim 2, wherein a plurality of said groove, said through hole, said threaded hole or said different-material portion are disposed at symmetric positions of the respective columnar yokes with respect to the position of the subject.

10 15. A magnetic resonance imaging apparatus comprising:
a static magnetic field generating apparatus for generating a static magnetic field using permanent magnets;
a gradient magnetic field generating device for generating a gradient magnetic field;
15 a transmitting/receiving device for transmitting/receiving a radio frequency magnetic field in said static magnetic field; and
a control section for controlling said gradient magnetic field generating device, said transmitting device and said receiving device, wherein
said static magnetic field generating apparatus comprises, in columnar
20 yokes that magnetically connect and structurally support base yokes supporting a pair of opposingly disposed said permanent magnets, a modifying device for modifying magnetic resistance of said columnar yokes.

16. The magnetic resonance imaging apparatus of claim 15,
25 wherein said modifying device comprises a groove on a side surface of at least one of said columnar yokes, said side surface lying in parallel with a longitudinal axis of said columnar yoke, a through hole passing through said side surface, or a threaded hole provided on said side surface, and an insert member of a shape generally conforming to said groove, a filling member of a shape generally
30 conforming to said through hole, or a screw of a shape engaged in said threaded

hole.